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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,093	04/12/2004	Timothy M. Swager	M0925.70143US00	3154
7590 Timothy J. Oyer, Ph.D. Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210			EXAMINER METZMAIER, DANIEL S	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 03/02/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/823,093

Applicant(s)

SWAGER ET AL.

Examiner

Daniel S. Metzmaier

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-65, 81, 127 and 128 is/are pending in the application.
- 4a) Of the above claim(s) 39, 40, 50, 51, 53 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-38, 41-49, 52, 55-65 and 81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Detailed Action
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 32-65, 81, 127 and 128 are pending.

Election/Restrictions

1. Applicant's election of Group I, claims 32-65 and 81, and the structure of claim 52, wherein A110-119 are Hydrogen, \ddot{Q} is nitrogen and Y group is $-\text{CH}_2\text{-Si}(\text{t-Bu})\text{Me}_2$ in the reply filed on 27 May 2008 and 22 Sept 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Applicants assert that claims 32-38, 40-49, 52-53, 55-65, and 81 appear to read on the elected species.

In point of fact, none of the claims read on the elected species. The claimed -OY, "Y is SiR_3 ", does not provide for the species denoted by applicants having a methylene group ($-\text{CH}_2-$) or the specific "t-butyl" or "methyl" substituents in the structure denoted in the election as $-\text{CH}_2\text{-Si}(\text{t-Bu})\text{Me}_2$. Said structure is not deemed to have basis in the specification or the claims. Applicants have not pointed out basis therefore and the examiner is unable to find basis therefore. The disclosure and the claims set forth Y as "H or SiR_3 , each R independently being one of hydrogen and an organic moiety"

The species searched and examined has been "the structure of claim 52, wherein A110-119 are Hydrogen, \ddot{Q} is nitrogen (N) and Y group is SiR_3 , each R independently being one of hydrogen and an organic moiety. Claims 32-38, 41-49, 52, 55-65, and 81 read on said species.

2. Claims 39-40, 50-51, 53 and 54 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claims. Election was made **without** traverse in the reply filed on 27 May 2008 and 22 Sept 2008.

Examination of Species

3. The species searched and examined has been "the structure of claim 52, wherein A110-119 are Hydrogen, \ddot{Q} is nitrogen (N) and Y group is SiR_3 , each R independently being one of hydrogen and an organic moiety. Claims 32-38, 41-49, 52, 55-65, and 81 read on said species. The species, wherein R is an organic moiety is deemed indefinite and not adequately enabled. No prior art has been applied to the elected species due to the issues under 35 USC 112. The prior art rejections are provided to applicants as reading on additional species.

Information Disclosure Statement (IDS)

4. The following IDS filings are included with this Office Action: filed 26 Nov. 2004 (pages 1-6); filed 04 May 2005 (page 1); filed 03 June 2005 (page 1); filed 05 April 2007 (page 1); filed 14 Feb. 2008 (pages 1-4); and filed 16 April 2008 (page 1).

5. The Patent number and the name of the Patent for Reference A4 in the IDS filed 14 Feb. 2008 do not correspond and the examiner fails to see the relevance to the instant claims for the patent number that is listed. Reference has not been considered.

6. The information disclosure statement filed 26 Nov. 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all


other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The remaining references that are crossed through are either duplicate citations or the reference was not provided.

Claim Interpretation

7. Claim 32 is directed to a composition comprising a compound of the following formula:



wherein said compound, (1) is capable of cyclizing upon reaction with an electrophile, and (2) said electrophile is able to transform —OY to an alkylating agent. The claimed group  comprising an organic moiety, $\ddot{\text{N}}$ is nitrogen or oxygen and $\bullet\bullet$ represents a lone pair of electrons (see page 29, line 5), Y is H or SiR_3 , and R is independently H or an organic moiety.

Applicants disclose a number of embodiments, including and not limited to different conjugated pi-bonding orbitals and electrophilic reactants. It is noted that the compound is capable of cyclizing. Cyclization of the compounds are not require as claimed, only the ability thereof.

"Alkylating agent" is defined at page 25, lines 23-27, of the specification.

It is noted that each of the instant claims has at the earliest an effective date of 07 October 2003, which is the filing date of Parent application serial number

10/680,714. Some subject matter may have the instant filing date as the earliest effective date.

Specification

8. Applicant is reminded of the proper content of an Abstract of the Disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and **legal phraseology often used in patent claims**, such as "means" and "said," **should be avoided**. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

In chemical patent abstracts for compounds or compositions, the general nature of the compound or composition should be given as well as its use, *e.g.*, "The compounds are of the class of alkyl benzene sulfonyl ureas, useful as oral anti-diabetics." Exemplification of a species could be illustrative of members of the class. For processes, the type reaction, reagents and process conditions should be stated, generally illustrated by a single example unless variations are necessary.

The phrase, "but not limited to" should not be in the abstract. The claims are directed to cyclizing compounds but the abstract provides no description of said compounds or the cyclizing. Complete revision of the content of the abstract is required on a separate sheet.

9. The disclosure is objected to because of the following informalities: the "Related Applications" section (page 1) of the application requires updating the status of the applications relied upon for priority.

The paragraph, beginning at page 12, line 25, requires updating the status of the applications referred to therein.

Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 32-38, 41-49, 52, 55-65, and 81 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for Y as hydrogen (H), does not reasonably provide enablement for Y is SiR₃, wherein R is an organic moiety. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The claimed subject matter encompasses embodiments that would require undue experimentation to determine the full scope of the subject matter sought for patenting. Analysis of said subject matter is set forth, *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), and includes:

(A) The breadth of the claims include multiple groups, (or "R", which are set forth as "an organic moiety". This includes as possibilities, any organic substituent that may or may not be substituted.

(B) The nature of the invention is stated as "luminescent and optically absorbing compositions . . . luminescent and optically absorbing properties of those compositions and/or precursors of those compositions". The claims do not require any limitation on the luminescent and optically absorbing properties of the claimed compositions.

(C) The state of the prior art includes unlimited utilities and possibilities in the absence of a specific organic moieties, specific electrophilic agent, the resulting alkylating agent and/or transformation reaction, and/or the point of reaction or point of cyclizing of the compound.

(D) The level of one of ordinary skill generally ranges from chemical technicians to those having extensive higher education and post Doctorate experience.

(E) The level of predictability in the art is not high based on the lack of specific organic moieties, specific electrophilic agent, the resulting alkylating agent and/or transformation reaction, and/or the point of reaction or point of cyclizing of the compound.

(F) The amount of direction provided by the inventor is low because the no specific examples of "R" are set forth in the disclosure.

(G) The existence of working examples exist but none of the examples set forth Y with any specificity.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure is deemed to be undue since the skilled artisan would be required to run unlimited or an infinite number of experiments to realize the full

scope of the claimed subject matter. Since the specific organic moieties, specific electrophilic agent, the resulting alkylating agent and/or transformation reaction, and/or the point of reaction or point of cyclizing of the compound are undefined; the full scope of the claimed subject matter is not deemed to be enabled as requiring undue experimentation to make and use the compounds claimed.



12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 32-38, 41-49, 52, 55-65, and 81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rejected as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are as follows.

Initially, the claims are directed to a composition but only define a compound. The preamble is inconsistent with the body of the claim. The claims do not define the remaining composition. It is unclear what other elements of the composition are intended. The metes and bounds of the claims sought for patent are indefinite.

Furthermore, applicants have elected the structure of claim 52, wherein A110-119 are Hydrogen, \ddot{Q} is nitrogen and Y group is SiR_3 , each R independently being one of hydrogen and an organic moiety. Since the claims set forth -OY, wherein Y is defined as SiR_3 and R is an organic moiety, the materials have not been defined with enough specificity to determine the metes and bounds of the claimed subject matter.

The metes and bounds of the structure, , is indefinite and/or incomplete since the claims set forth the noted structure as an organic moiety with substituents \ddot{Q} and $-OY$, wherein Y may contain an organic moiety: (1) is capable of cyclizing upon reaction with a electrophile, and (2) said electrophile is able to transform $-OY$ to an alkylating agent. Since the claims do not define the organic moiety of  or "R", the specific electrophilic agent, the resulting alkylating agent and/or transformation reaction, and/or the point of reaction or point of cyclizing of the compound; it is unclear what are the metes and bounds of the claimed subject matter sought for patenting.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

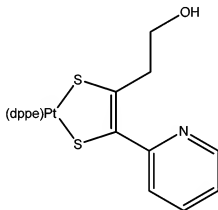
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

15. Claims 32-38, 41-49, 51, 55, 62-63 and 81 are rejected under 35 U.S.C. 102(b)¹ as being anticipated by Van Houten et al, "Rapid Luminescent Detection of Phosphate Esters in Solution and the Gas Phase Using (dppe)Pt{S₂C₂(2-pyridyl)(CH₂CH₂OH)}", *J. Am. Chem. Soc.* **1998**, 120, 12359-12360 (Published on web on 11/13/1998)².

Please see complex (1):



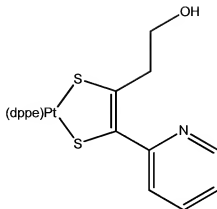
(1).

Said complex reads on the claimed compositions.

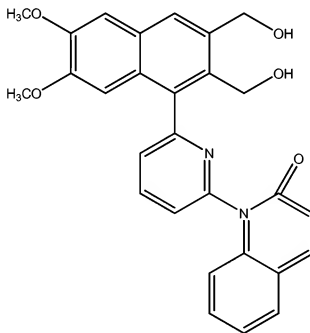
16. Claims 32-38, 41-49, 51, 55, 62-63 and 81 are rejected under 35 U.S.C. 102(e) as being anticipated by Pilato et al, US 6,610,848. Pilato et al (column 12, lines 56 et seq) discloses making (dppm)Pt{S₂C₂(2-pyridyl)(CH₂CH₂OH)}, which corresponds to complex (1):

¹ See claim interpretation for effective dates of claims.

² Reference was cited in applicants' IDS filed 26 November 2004 and additionally cited on attached PTO-892.



17. Claims 32-38, 43-49 and 62-63 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanabe Seiyaku Co Ltd, EP 0 748 805 A1. See Table 5, page 26, discloses compounds reading on the instant claims as the following compound.



Since the structure reads on the claimed structure, it is reasonable to expect the compounds would be: (1) able to cyclizing upon reaction with an electrophile, and (2) said electrophile is able to transform -OY to an alkylating agent as inherent properties

of the compounds. A compound and all of its properties are generally inseparable. *In re Papsech*, 315 F2d. 381, 137 USPQ 43, (CCPA 1963).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Daniel S. Metzmaier/
Primary Examiner, Art Unit 1796**

DSM